

REMARKS

I. Status of Claims

Claims 36-70 are pending. Claim 36 has been amended to clarify that the process, and not the cable, comprises the recited process steps. The amendment has Section 112 support in the specification, for example, at page 25, lines 1-8 and the original claims. Thus, no new matter is added by this amendment. Since this minor amendment is not the basis for distinguishing the prior art, Applicants' believe the minor amendment cannot be a basis for declaring the next office action, if any, final.

II. Interview

Applicants thank the Examiner and Primary Examiner Jeff Wollschlager for their time to discuss the instant application with the undersigned on June 28, 2010. As noted in the Request Form, submitted June 24, 2010, Applicants raised the issue of the rejection of claims over U.S. Patent Application Pub. No. 2003/0059613 to Tirelli et al. ("Tirelli") in view of Japanese Patent App. No. 2000-106041 to Otani ("Otani"). It is the undersigned's understanding that agreement was reached that the rejection, as presented, did not address the claim requirement for a static mixer. It is also the undersigned's understanding that agreement was reached that Tirelli's disclosure of "internal mixers" at ¶ [0067] is not a disclosure of a static mixer. During the interview, the undersigned further explained Applicants' reasoning as to why neither Tirelli nor Otani disclose this limitation. The Examiner said she would consider the arguments and the scope of Tirelli and Otani when a response had been filed.

III. Section 103 Rejections

The Office rejects claims 36-46 and 49-70 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Tirelli in view of Otani for the reasons provided at pages 2-7 of the Office Action. The Office also rejects claims 47-48 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Tirelli in view of Otani, and further in view of WO 02/47092 to Belli et al. ("Belli") for the reasons provided at page 8-9 of the Office Action. Applicants respectfully disagree and traverse for the reasons set forth below.

With respect to obviousness, several basic factual inquiries must be made in order to determine the obviousness or non-obviousness of claims under 35 U.S.C. § 103. These factual inquiries, set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 U.S.P.Q. 459, 467 (1966), require the Examiner to:

- (1) Determine the scope and content of the prior art;
- (2) Ascertain the differences between the prior art and the claims in issue;
- (3) Resolve the level of ordinary skill in the pertinent art; and
- (4) Evaluate evidence of secondary considerations.

The obviousness or nonobviousness of the claimed invention is then evaluated in view of the results of these inquiries. *Graham*, 383 U.S. at 17-18, 148 U.S.P.Q. at 467; *see also KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1730, 82 U.S.P.Q.2d 1385, 1388 (2007).

The Office argues that Tirelli teaches each and every limitation of claim 36, except that it "is silent to at least one expanding agent blended with 100 parts by weight of a flame-retardant filler." Office Action at 3. The Office then relies on Otani, arguing that "it would have been obvious to one of ordinary skill in the art at the time of the

invention to have modified the process for manufacturing a self-extinguishing cable comprising at least one conductor (transmissive element) and at least one flame-retardant coating of TIRELLI et al. to include the addition of the foaming agent (expanding agent) taught by OTANI for the benefits of producing a flexible non-halogen self-extinguishing cable with sufficient tensile strength for improved handling nature and workability as well as secure fire retardancy.”¹ *Id.* at 3-4. Yet the combination of Tirelli and Otani fails to teach or suggest at least one limitation of method claim 36: “passing the flame-retardant polymeric material obtained in step (ii) through at least one static mixer.”

The Office characterizes Tirelli’s process as comprising “said [flame retardant coating components] are premixed in an internal mixer [0067] . . . [then] feeding the flame-retardant polymeric material to an extruding apparatus [0069]. . . .” Office Action at 2. That is insufficient. The Office does not address whether either Tirelli or Otani teaches or suggests a method comprising “passing the flame-retardant polymeric material obtained [from an extruding apparatus] through at least one static mixer [prior to depositing],” presumably because neither reference teaches or suggest this limitation.

First, Tirelli does not teach or suggest an in-line mixer, such as a static mixer. In Tirelli, only paragraphs [[0067]-[0072], and [0098] even discuss the concept of mixing the components; however, none disclose a mixing process that could be placed in-line

¹ In view of the Office’s citation to information that is not from the Abstract, it is apparent the Office is relying upon a translation of Otani that was not provided to Applicants. If this translation varies in any substantial way from enclosed translation, Applicants request a copy be provided to them.

between an extruder and the depositing of the composition on the cable. Rather paragraphs [0067]-[0072] discuss the method of making, which includes alternative processing steps, including mixing the components of the flame-retardant composition in active mixers, such as a Banbury or Ko-Kneader, or in an active mixer followed by an extruder. Paragraph [0098] teaches even less. A person skilled in the art would readily recognize that neither disclosure teaches or suggests passing an extruder melted/mixed flame-retardant polymeric material, which comprises a liquid and a solid, through a static mixer.

Second, Tirelli does not teach or suggest processing its composition through an extruder *before* passing through a separate mixer. As noted above, the only options disclosed are a mixer and a mixer followed by an extruder, such as in claim 37; not an extruder followed by a mixer, let alone an in-line mixer, such as a static mixer.

Similarly, Applicants find no teaching in Otani that teaches or suggests use of a static mixer to mix the flame-retardant composition, especially after the extruder. See, e.g., ¶ 7 of translation provided concurrently herewith. With respect to Belli, Applicants see no suggestion of a method suitable for mixing a solid, such as inorganic filler, and melted expandable polymer.

Notably, Applicants' examples disclose that the use of a static mixer after an extruder provides superior results for mixing a solid component into the melted expandable polymer to form the expandable flame-retardant polymeric material. See e.g., specification-as-filed at p. 31.

Because the cited prior art fails to teach each and every limitation in Applicants' claims, Applicants respectfully submit that the Office's 35 U.S.C. § 103(a) rejection of independent claim 36 should be withdrawn.

IV. Conclusion

In view of the foregoing remarks, Applicants respectfully request reconsideration of this application and the timely allowance of the pending claims. If the Examiner believes a telephone conference could be useful in resolving any outstanding issues, she is respectfully invited to contact Applicants' undersigned counsel at (202) 408-4275.

Please grant any additional extensions of time required to enter the attached reply and charge any additional required fees to Deposit Account No. 06-0916.

Respectfully submitted,

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Attachment - Translation of JP 2000-106041